PMCP

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION NUMBER
Environmental Management/Bechtel Jacobs Company LLC	01/09/2004	DE-AC05-98OR22700

4. WBS ELEMENT CODE	5. WBS ELEMENT TITLE
1.12.05.01.02.01	PORTS QUADRANT I CORRECTIVE ACTIONS

6. INDEX LINE NO.	7. REVISION NO. AND AUTHORIZATION	8. DATE
	N/A	N/A

9. APPROVED CHANGES
N/A

10. SYSTEM DESIGN DESCRIPTION	11. BUDGET AND REPORTING NUMBER

12. ELEMENT TASK DESCRIPTION

WBS GRAPHIC

See attached.

INTRODUCTION

The U.S. Department of Energy (DOE) Environmental Restoration Program at the Portsmouth Gaseous Diffusion Plant (PORTS) is the subject of two enforcement actions. The State of Ohio issued a Consent Decree (CD) in August 1989, and the United States Environmental Protection Agency (USEPA) Region V issued an Administrative Order by Consent (AOC), under the authority of Section 3008(h) of the Resource Conservation and Recovery Act (RCRA) in September 1989 (amended in 1994 and 1997).

Quadrant I, located in the southern most portion, occupies approximately 1,068 acres of the 3,714-acre DOE reservation. Investigations for 24 SWMUs in Quadrant I (Level 6 Subproject) were included in the Quadrant I RFI (DOE 1997). The five SWMUs (Level 7 Subproject) in Quadrant I that were determined to require corrective action, due to volatile organic contaminants, are the X-749B Peter Kiewit Landfill (soils only), X-231A Southeast Biodegradation Plot (soils only), the X-231B Southwest Oil Biodegradation Plot (soils only), the 5-Unit Groundwater Investigation Area (groundwater only), and the X-749/X-120 Area Groundwater Plume (groundwater only).

U.S. EPA and Ohio EPA issued a Decision Document for the X-749B Peter Kiewit Landfill in May 1996 outlining the selected corrective measure for the unit, a RCRA Subtitle D cap. The corrective measure, RCRA Subtitle D cap, was installed over X-749B Peter Kiewit Landfill in 1999. The Ohio EPA issued a second Decision Document for the Quadrant I on March 23, 2001(Ohio EPA 2001) which outlined the specific selected corrective measure for the remaining four SWMUs.

LOGIC RELATIONSHIPS

The Quadrant I Corrective Actions (05.01.02.01) contains inter-project relationships with Sitewide Assessments (05.01.01.01), PORTS Environmental Monitoring (05.02.01.01), PORTS Post Remediation S&M (05.02.01.02), DOE Prime Waste Treatment/Disposal (09.01.02.21-23), and commercial Waste Treatment/Disposition facilities. Predecessor (Assessments and Environmental Monitoring) or successor (Environmental Monitoring and Post-Remediation Surveillance and Maintenance and commercial Waste Treatment/Disposition facilities) relationships at the level six WBS element consist of logic ties between remediation activities and Facility modifications necessary to support the remediation requirements and completion/approval of the remedial alternatives as spelled out in the US DOE Portsmouth Quadrant I Decision Document (Ohio EPA 2001). These include but are not limited to:

Groundwater monitoring of wells required in the Integrated Groundwater Monitoring Plan prior to issuance of the Decision Document.

Assessments were completed on the Quadrant I (RFI, ISMP, CAS/CMS) prior to the issuance of the Decision Document.

Groundwater monitoring of wells required by the corrective action of the CMI.

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION NUMBER
Environmental Management/Bechtel Jacobs Company LLC	01/09/2004	DE-AC05-98OR22700

4. WBS ELEMENT CODE	5. WBS ELEMENT TITLE
1.12.05.01.02.01	PORTS QUADRANT I CORRECTIVE ACTIONS

6. INDEX LINE NO.	7. REVISION NO. AND AUTHORIZATION	8. DATE
	N/A	N/A

9. APPROVED CHANGES
N/A

10. SYSTEM DESIGN DESCRIPTION	11. BUDGET AND REPORTING NUMBER

12. ELEMENT TASK DESCRIPTION (Continued)

Long-term S&M and Routine S&M activities are separated in the LCB so that base operations decline and long-term stewardship increases over time. This separation of long term S&M also assists in estimating the liability remaining following remediation. All S&M activities necessary following remediation, e.g. surveillance, maintenance, monitoring, operations of treatment facilities, repair and replacement are included in long-term S&M. DOE Order 413.3 also requires this distinction between routine and long-term S&M.

SCOPE DESCRIPTION

1. Release Sites and Facilities

Assessments to be completed:
None, all assessment activities were performed under Sitewide Assessments, WBS 05.01.01.01.

Corrective Actions to be completed:
RAIMS

Unit #	RELEASE SITES
2094	5-Unit Groundwater Investigative Area
2107	X-749B Peter Kiewit Landfill
2154	X-231A Southeast Oil Biodegredation Plot
2155	X-231B Southwest Oil Biodegredation Plot
2244	X-749/X-120 Area Groundwater Plume

Detail on the actions to be performed in Quadrant I can be found in Record of Decision/Decision Document Peter Kiewit Landfill (U.S./Ohio EPA 1996), US DOE Portsmouth Quadrant I Decision Document (Ohio EPA 2001), and Quadrant I Corrective Measures Implementation Work Plan (May 2001, DOE/OR/11-3072&D2). These documents describe quantities, areas, number of wells, and other pertinent information.

5-UNIT GROUNDWATER INVESTIGATIVE AREA (05.01.02.01.02)

Constructed a groundwater extraction system using the three existing extraction wells and installed an additional 11 conventional extraction wells throughout the contaminate plume. Extracted groundwater will be treated at the upgraded X-622 Groundwater Treatment Facility.

X-231A SOUTHEAST OIL BIODEGREDATION PLOT (05.01.02.01.03)

Installed a multi-media cap to direct surface water into the drainage ditch flowing to X-230K South Holding Pond.

X-231B SOUTHWEST OIL BIODEGREDATION PLOT (05.01.02.01.04)

Installed a multi-media cap to direct surface water into the drainage ditch flowing to X-230K South Holding Pond.

X-749 BARRIER WALL (05.01.02.01.05)

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION NUMBER
Environmental Management/Bechtel Jacobs Company LLC	01/09/2004	DE-AC05-98OR22700

4. WBS ELEMENT CODE	5. WBS ELEMENT TITLE
1.12.05.01.02.01	PORTS QUADRANT I CORRECTIVE ACTIONS

6. INDEX LINE NO.	7. REVISION NO. AND AUTHORIZATION	8. DATE
	N/A	N/A

9. APPROVED CHANGES
N/A

10. SYSTEM DESIGN DESCRIPTION	11. BUDGET AND REPORTING NUMBER

12. ELEMENT TASK DESCRIPTION (Continued)

Continue the seep collection system and construct a low permeability solid waste cap. If it can be demonstrated through monitoring after installation of the cap that elimination of the seep discharge can be achieved, installation of a slurry wall may be deferred.

X-749B PETER KIEWIT LANDFILL SEEPS CONVERSION (05.01.02.01.11)

Convert the X-749B (Peter Kiewit Landfill) seeps collection system from active to passive operation.

X-749/120 GROUNDWATER PLUME

X-749/120 BIOREMEDIATION PBI (05.01.02.01.14)

Complete subcontract closeout of cancelled project.

X-749 SW COLLECTION TRENCH BIO TREATMENT (05.01.02.01.16)

Convert the existing X-749 Landfill southwestern collection trench from an active to passive system with a bioremediation or oxidant treatment system.

X-749/120 PHYTOREMEDIATION NON CAPITAL (05.01.02.01.17), CAPITAL (05.01.02.01.19)

Remediate groundwater contaminant by planting hybrid poplar trees in seven separate areas. Construction of the first 4.5 acres was completed in August, 2002.

PERFORMANCE METRICS/INDICATORS

- Submit Weekly Progress Report
- Submit Monthly Progress Report
- Submit Quarterly Progress Report
- Monthly Status Review
- Construct X-749 Barrier Wall and X-749 Landfill cap restoration by 10/07/2002 (excluding slurry disposal)
- Submit CMI 95% Phyto Design on remaining acres to OEPA by 12/19/02
- Complete remediation action for X-749/X-120 groundwater plume by 08/15/03
- Issue Final Progress, Certifications, and ISM Reports for Quadrant I Decision Document requirements by 01/02/2004
- Award Design and Build contract for PK Barrier Wall by 10/02/03
- Complete field construction of PK Barrier Wall by 09/29/04
- Convert X-749 southwestern collection trench from active to passive by 11/04/04
- Convert PK (X-749B) seep collection from active to passive by 02/08/05

Past and Future Accomplishments:

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION NUMBER
Environmental Management/Bechtel Jacobs Company LLC	01/09/2004	DE-AC05-98OR22700

4. WBS ELEMENT CODE	5. WBS ELEMENT TITLE
1.12.05.01.02.01	PORTS QUADRANT I CORRECTIVE ACTIONS

6. INDEX LINE NO.	7. REVISION NO. AND AUTHORIZATION	8. DATE
	N/A	N/A

9. APPROVED CHANGES
N/A

10. SYSTEM DESIGN DESCRIPTION	11. BUDGET AND REPORTING NUMBER

12. ELEMENT TASK DESCRIPTION (Continued)

X-749B PETER KIEWIT LANDFILL
Initial seep collection system completed FY 1997
IRM Secondary seep collection completed FY 1998
Solid waste cap completed FY 1998

X-231A SOIL (CAP)
X-231B SOIL (CAP)
Remediation construction completed FY 2001

X-749/120 GROUNDWATER PLUME

X-749 Landfill Barrier Wall construction and 4.5 acres of Phytoremediation (trees planted) completed FY 2002.

Future Scope Accomplishments:

5-UNIT GROUNDWATER INVESTIGATIVE AREA (05.01.02.01.02)

Perform well measurements, validate surveys, As-built drawings, Final Certification. Added 2B milestones for delivery of final reports to DOE. Complete remaining items to close Decision Document requirements: Waste disposition, two annual 30-day performance tests.

X-231A SOUTHEAST OIL BIODEGREDATION PLOT (05.01.02.01.03)

As-built drawings, PE response to comments on Final Certification Report.

X-231B SOUTHWEST OIL BIODEGREDATION PLOT (05.01.02.01.04)

As-built drawings, PE response to comments on Final Certification Report.

X-749 BARRIER WALL (05.01.02.01.05)

Complete restoration of X-749 Landfill cap as designed, install performance piezometers and monitoring wells, waste characterization and transportation for disposal, slurry disposition, 30-day performance test of barrier wall, PE certification report, demobilization.

X-749B PETER KIEWIT LANDFILL BARRIER WALL (05.01.02.01.07)

After the X-749B 5-Year evaluation (activity performed under Sitewide Assessments, WBS 05.01.01.01) is completed (FY 02), the U.S and Ohio EPA will determine if additional corrective action is required by installing a barrier wall to restrict the lateral migration of groundwater through X-749B buried waste.

PMCP

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION NUMBER
Environmental Management/Bechtel Jacobs Company LLC	01/09/2004	DE-AC05-98OR22700

4. WBS ELEMENT CODE	5. WBS ELEMENT TITLE
1.12.05.01.02.01	PORTS QUADRANT I CORRECTIVE ACTIONS

6. INDEX LINE NO.	7. REVISION NO. AND AUTHORIZATION	8. DATE
	N/A	N/A

9. APPROVED CHANGES
N/A

10. SYSTEM DESIGN DESCRIPTION	11. BUDGET AND REPORTING NUMBER

12. ELEMENT TASK DESCRIPTION (Continued)

X-749/120 GROUNDWATER PLUME

X-749/120 BIOREMEDATION PBI (05.01.02.01.14)

Complete project closeout for X-749/120 Bio one-acre demonstration.

X-749 LANDFILL SW COLLECTION TRENCH BIO TREATMENT (05.01.02.01.16)

Design and build an insitu bioremediation or oxidant treatment system to replace the existing X-749 Landfill southwestern collection trench for a cost saving action.

Excavated areas will be backfilled to grade, followed by site restoration. Excavated media will be treated/disposed of at regulatory approved offsite facilities or if not required disposed onsite as construction spoils. All project records and files related to Quadrant I corrective action will be archived in accordance with DOE Orders.

X-749/120 PHYTOREMEDIATION

Complete installation of the remaining Phytoremediation acreage required for remediation of the contaminated groundwater in accordance with the Quadrant I Decision Document annual goals.

NON-CAPITAL (05.01.02.01.17)

Complete operations, maintenance, and monitoring on Phytoremediation Phase II (first 4.5 acres). PE Certification, ISMP section.

For the remaining 41 acres, non-capital scope includes waste disposition, PE Certification, ISMP section. Operations, maintenance, and monitoring for five months.

Additional scope is required for re-planting trees which expired due to unusually wet conditions during Spring/Summer 2003. Re-planting activities will take place April - May 2004.

CAPITAL (05.01.02.01.19)

Complete design activities, procure trees, mobilize for construction, excavating, planting, backfilling, demobilization.

QUADRANT I DECISION DOCUMENT CLOSEOUT/FINAL CLOSEOUT
Finalize all remaining items to close Decision Document requirements: Waste disposition, Archive project files, Final Certification Reports, and Integrated Surveillance Maintenance Plans.

PROJECT PLANNING AND SUPPORT (05.01.02.01.01)

Provide project level planning, oversight, support, project control, and reporting for all activities within this project. This

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION NUMBER
Environmental Management/Bechtel Jacobs Company LLC	01/09/2004	DE-AC05-98OR22700

4. WBS ELEMENT CODE	5. WBS ELEMENT TITLE
1.12.05.01.02.01	PORTS QUADRANT I CORRECTIVE ACTIONS

6. INDEX LINE NO.	7. REVISION NO. AND AUTHORIZATION	8. DATE
	N/A	N/A

9. APPROVED CHANGES
N/A

10. SYSTEM DESIGN DESCRIPTION	11. BUDGET AND REPORTING NUMBER

12. ELEMENT TASK DESCRIPTION (Continued)

Weekly Progress Report
Monthly Technical Progress Report
Monthly Status Review
Quarterly Progress Report
Project Baseline Summary
Site Baseline Summary
NEPA Documents

Maintain Curative Measures commitment tracker system that enhances the identification and tracking of various corrective actions, reportable occurrences, walkthroughs, surveillances, environmental compliance items, and management commitments. Associated tasks include distributing weekly tracker reports, issuing monthly progress reports, and developing and/or reviewing corrective action plan, lessons learned and root cause analysis in support of selected curative measures.

SAFETY AND HEALTH WORK PERFORMANCE

It is the core value of Bechtel Jacobs Company that the safety and health of every worker, the public at large, and our environment, are the most important assets we are entrusted to protect. To accomplish this, an Integrated Safety Management System (ISMS), based on DOE's DEAR 970, has been implemented that incorporates the five core functions and is based on the seven guiding principles. The objective of ISMS is to integrate safety and environmental protection into the planning and execution of all work activities. The term safety encompasses Nuclear Safety, Industrial Safety, Industrial Hygiene, Occupational Health, Health Physics, and environmental protection. ISMS requirements flow-down to Bechtel Jacobs Company subcontractors. The Five Core Functions are: (1) Define the scope of work, (2) Analyze hazards, (3) Develop and implement hazard controls, (4) Perform work within controls, and (5) Provide feedback and continuous improvement. The Seven Guiding Principles are (1) Line Management Responsibility for Safety, (2) Clear Roles and Responsibilities, (3) Competence commensurate with responsibility, (4) Balanced Priorities, (5) Identification of Safety Standards and Requirements, (6) Hazard Control Tailored to Work Being Performed, and (7) Operations Authorization.

Miscellaneous

Database maintenance will include P3, training database, PMCP, RAIMS, SPDRT, BPS, and SQV.

All scope will be accomplished in a 6 Sigma fashion. Oversight Plans will be developed for each subproject and assessments conducted as approved in oversight plans and in accordance with BJC procedures and plans.

Development of configuration items list will be accomplished, maintained, and reviewed prior to construction or maintenance activities in accordance with the Configuration Management Plan for PORTS through the Configuration Control Authority and Site Configuration Manager.

A project execution plan will be developed for each subproject to communicate to the project team the scope, method of accomplishment, performance criteria and metrics and procurement strategy.

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION NUMBER
Environmental Management/Bechtel Jacobs Company LLC	01/09/2004	DE-AC05-98OR22700

4. WBS ELEMENT CODE	5. WBS ELEMENT TITLE
1.12.05.01.02.01	PORTS QUADRANT I CORRECTIVE ACTIONS

6. INDEX LINE NO.	7. REVISION NO. AND AUTHORIZATION	8. DATE
	N/A	N/A

9. APPROVED CHANGES
N/A

10. SYSTEM DESIGN DESCRIPTION	11. BUDGET AND REPORTING NUMBER

12. ELEMENT TASK DESCRIPTION (Continued)

1. Procurement
2. Field Services (STR)
3. Safety (SA)
4. Environmental Compliance
5. Engineering
6. Waste management
7. Fire & Emergency Protection
8. Nuclear Safety support thru Engineering
9. Quality
10. Planning & Controls
11. Project Management

Subcontracted support:

1. Health Physics
2. Quality
3. Admin & Visual Aids
4. Engineering
5. Rad Con
6. Sample Management
7. Waste Management
8. Site Services
9. Sampling Services
10. Sampling Analysis
11. Independent Estimating
12. Other subcontracting as follows:
    5-Unit Groundwater Remediation
    X-749/120 GW Barrier Wall
    X-749 B Peter Kiewit Barrier Wall (Not yet negotiated)
    X-749/120 Phytoremediation (Not yet negotiated)
    Conversion of X-749 B Collection System Active to Passive (Not yet negotiated)
    Conversion of X-749 Landfill collection trench Active to Passive (Not yet negotiated)

Bechtel Jacobs Company LLC will award competitive subcontract(s) for such activities as evaluation studies, design, construction management, and remedial action. Bechtel Jacobs Company LLC will provide project management, (including bid invitations, evaluations, and contract awards), project control, and contract management of these subcontracts. The following work will be conducted by fixed price and fixed unit rate subcontractor(s): Waste/Material/Facility Operations, Maintenance, and Field Services tasks; HP and IH support tasks; Quality Assurance support; Engineering support tasks; supplemental Planning & Controls support; Nuclear Criticality Safety and radiological engineering support; Curative Measures support; Design/ Construction; Sampling, Inspections, and Reporting. The following work will be conducted by cost-reimbursable work authorizations: sewage, utilities, and power distribution.

PMCP

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION NUMBER
Environmental Management/Bechtel Jacobs Company LLC	01/09/2004	DE-AC05-98OR22700

4. WBS ELEMENT CODE	5. WBS ELEMENT TITLE
1.12.05.01.02.01	PORTS QUADRANT I CORRECTIVE ACTIONS

6. INDEX LINE NO.	7. REVISION NO. AND AUTHORIZATION	8. DATE
	N/A	N/A

9. APPROVED CHANGES
N/A

10. SYSTEM DESIGN DESCRIPTION	11. BUDGET AND REPORTING NUMBER

12. ELEMENT TASK DESCRIPTION (Continued)

RCRA Part B Permit
Administrative Order by Consent
Ohio Consent Decree
Director's Findings & Orders for Integrated Units
Ohio Administrative Code 3745-54 through 3745-55 and 3745-29.
40 CFR 761
Applicable DOE Orders
Applicable Executive Orders

As applicable, indicate other regulatory-related requirements.
CERCLA: Y RCRA: Y DNFSB: N DOE Orders: Y AEA: Y/N UMTRCA: Y/N State: Y Other: Y

Detail on the actions to be performed in Quadrant I can be found in:
US DOE Portsmouth X-749B Peter Kiewit Landfill Decision Document (US/Ohio EPA 1996)
US DOE Portsmouth Quadrant I Decision Document (Ohio EPA 2001)
Quadrant I Corrective Measures Implementation Work Plan (May 2001, DOE/OR/11-3072&D2)

WASTE VOLUMES

Please see attached waste performance metrics, as applicable.

PROJECT SCHEDULE

Please see attached project summary schedule, project detail schedule, and Milestone Status Summary Report.

EXECUTION YEAR BASELINE

Please see attached Budgeted Cost of Work Scheduled Plan.

BASELINE BY YEAR

Please see attached Baseline by Year Report.